
ENVIRONMENTAL Fact Sheet



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Fugitive Dust

Fugitive dust is particulate matter, or particle pollution, that becomes airborne from activities such as construction, commercial mining, driving on unpaved roads, demolition, and soil and wind erosion. It is considered an open or nonpoint source of air pollution because fugitive dust emissions do not originate from a specific source such as a stack, chimney or vent. Under certain conditions and in certain quantities, fugitive dust can be harmful to human health and a public nuisance. It is, therefore, a regulated pollutant that must be minimized.



Health and Environmental Effects

The potential health effects of particle pollution are related to the size of the particles. The smallest particles pose the greatest health problems because they can get inhaled deeply into the lungs. People most at risk from breathing particle pollution are children, the elderly, and people with existing heart and respiratory disease. Healthy individuals can be affected as well, especially those who work and recreate outdoors. The health effects of inhaling particle pollution include:

- Irritation to the eyes, nose and throat.
- Respiratory distress, including coughing, difficulty in breathing and chest tightness.
- Increased severity of bronchitis, asthma and emphysema.
- Heart attacks and aggravated heart disease.
- Premature death in individuals with serious lung or heart disease.

Fugitive dust can also reduce visibility (i.e., cause hazy conditions), resulting in obscured views, which can result in driving or work site equipment accidents.

How is Fugitive Dust Regulated in New Hampshire?

The state rules governing fugitive dust (Env-A 101.87) define it as particulate matter (PM) that “is uncontaminated by pollutants resulting from industrial activity, including but not limited to

emissions from haul roads, wind erosion of exposed surfaces and storage piles, and other removal, storage, transportation, or redistribution activities.”

The Department of Environmental Services Air Resources Division has several rules that apply to fugitive dust and the activities that create it. For example, Env-A 1002 regulates fugitive dust from activities such as commercial mining, construction, road and pavement maintenance (e.g., sweeping, cleaning, upkeep), demolition, and storage activities. Anyone engaged in an activity that emits fugitive dust within the state is required to take precautions throughout the duration of the activity to prevent, abate and control the emissions. Precautionary measures include wetting, covering, shielding and vacuuming.

In addition, DES has rules for specific activities that create fugitive dust. For example, Env-A 2705 requires hot mix asphalt plant operators to control fugitive dust from chutes and conveyors. Env-A 2805 requires sand and gravel operators to control dust from roadways and stockpiles at their facilities.

Best Management Practices Plan

To minimize emissions of fugitive dust, DES strongly suggests that mining, construction and storage operations that include the unloading, redistribution, and maintenance of materials at a facility, prepare and follow best management practices for dust. At a minimum, the BMP should address the following elements:

- Site road maintenance, including watering, sealing or paving.
- Stockpile maintenance, including watering, management of drop distance between discharge point and top of stockpile, stockpile size and usage of magnesium chloride or other impermeable layer construction to reduce dust generation.
- Windbreaks, vegetation, topography management or embankment construction to prevent off-site transfer of dust.
- Crusher and material transfer equipment enclosures, water mist sprays and dust extraction and collection equipment.
- Loading and transport vehicle conduct, including movement and speed through the site and load management during calm and windy conditions.

More Information

For more information about fugitive dust in New Hampshire, contact the DES Air Resources Division at (603) 271-1370.